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ABSTRACT

This booklet is intended to help curriculum development personnel select an appropriate task list verification technique. The first sections of the guide introduce the concept of verification of task lists, provide a rationale for it, and define various terms connected with verification. The following four sections describe and make a case for four types of verification techniques: structured group interviews, program advisory councils, worker surveys, and worker interviews. Information provided for each technique includes description and special features, use of the technique, guidelines for use, resources needed, and pros and cons of the technique. The final section contains a list of the members of the National Network for Curriculum Coordination in Vocational and Technical Education by region. (KC)

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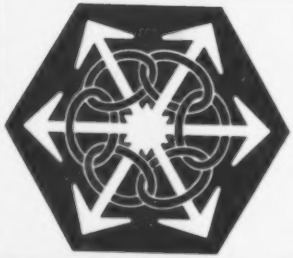

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Task List Verification Techniques

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Table of Contents

Foreword 2

Introduction 3

Definitions 9

Structured Group Interview (SGI) 11

Program Advisory Council (PAC) 17

Worker Survey 21

Worker Interview 27

NNCCVTE Regions 33

Foreword

This document is provided as a tool to help curriculum development personnel select an appropriate task list verification technique.

There are many techniques and combinations of techniques used to verify or validate task lists. The four techniques highlighted below are the most frequently used and most effective techniques available to vocational educators:

- **Structured Group Interview (SGI)**
  A 6 to 8 hour session involving 6 to 10 workers who are employed in the job for which tasks are being verified. A facilitator, trained specifically for the SGI technique, leads this verification committee through a process to identify and verify tasks.

- **Program Advisory Council (PAC)**
  A program advisory council meets for the purpose of reviewing the task list to identify tasks that could be added or deleted.

- **Worker Survey**
  A developed questionnaire is mailed to a representative sample of workers employed in the identified job. The purpose of the questionnaire is to obtain the workers' opinions as to importance of the individual tasks. Compilation of data results in a verified task list.

- **Worker Interview**
  This technique determines the tasks performed in a given job by following, observing and interviewing a sample of workers on the job.

Recognition is extended to the Illinois Department of Adult, Vocational and Technical Education whose research and program improvement emphasis on task list verification contributed greatly to this document. Thanks also to numerous other curriculum researchers involved in occupational job analysis across the country.

Introduction

The Carl D. Perkins Vocational Education Act makes some requirements that are greatly facilitated by the use of a competency based system of development. These requirements are:

- Assessment of competency levels of students.
- Infusion of basic academic foundations into curriculum content.
- Involvement of business and industry in content determination.
- State-Level Technical Committees to identify content of selected occupations of high state priority.

An essential element of competency based vocational education curriculum is a task list. The task list is the result of an occupational or job analysis. It defines, in performance terminology, what an entry level worker does. The tasks a worker is expected to perform become the basis for the curriculum content and development of the training program.

In order to comply with the Perkins requirements, a task list can be developed by creating an original task list or by using a verification process on an existing task list. It is important to involve business and industry representatives in the development of a task list before the work of curriculum development and instructional development takes place.

The verification process is used most frequently because it takes less time. If there is no existing task list to verify, however, one must be created.

The definition of verification is:

Task List Verification

A process that confirms the duties and tasks needed to perform a specific job area in a given locale.

Why Involve Business and Industry?

The federal vocational legislation contains many references to the involvement of business and industry representatives in the vocational program. This action was intended to counter criticisms that vocational education was not reflective of the needs of the work place.

Though local advisory committees have been operational for years, research evidence indicated that the committees often met after a vocational program had been implemented and the curriculum developed. Committee recommendations to change curriculum content were not easily accommodated at that point. Also, committee members were not always familiar with the occupational area, but merely represented related business in the community.

This document recommends involvement of business and industry representatives at the beginning of the curriculum development or revision process. This allows their input to be used at an appropriate time, rather than midway or at the end of the development process when it is too late and too costly to implement their recommendations.

Incumbent worker involvement in task list verification is also stressed. To identify what a specific worker does, it makes more sense to ask that worker directly rather than a person representing the worker's company. Too often company personnel directors or supervisors, who have not held the job being analyzed, have served on an advisory committee. Using such people for task list verification amounts to asking for an educated guess when, with the same effort, a knowledgeable incumbent worker can be involved.

The business and industry community is willing to assist schools in developing curriculum for vocational programs. Improved training programs are the result of this assistance. Other benefits include:

- Better qualified job applicants available for hire.
- Greater productivity.
- Less on-the-job training.

Why Verify?

Why not just take a task list developed by someone else -- a colleague, a state agency, a professional association or a curriculum development consortium? As credible as another source's task list may be, there are benefits to vocational educators, as well as to business and industry representatives of your community in verifying a task list. The following are examples of what the verification can accomplish.

- Identifies tasks affected by local codes and regulations.
- Notes special practices, tools or equipment used by local firms.
- Increases public relations benefits by including more people in the analysis.
- Results in greater confidence in the task list.
- Identifies "missed" tasks and clarifies meanings.

The verification process results in the addition, deletion and refinement of tasks. Its goal is not necessarily to expand or lengthen the existing task list, but to refine it so that it is truly reflective of the employers' needs in the identified placement area.

When to Verify

In most situations verification is recommended in order to fulfill the need to focus on the tasks that are most essential and to accommodate the potential benefits listed on the previous page. The following grid identifies when verification is recommended.

State Level Occupational Analysis Done Using Incumbent Workers	Verification Recommended
State Level Occupational Analysis Not Done Using Incumbent Workers	Verification Required
Local Level Occupational Analysis Done Using Incumbent Workers	Strongest Development Verification Not Recommended
Local Level Occupational Analysis Not Done Using Incumbent Workers	Verification Required

Selection of Verification Techniques

A variety of factors will determine which verification technique is best for your situation. Each of the four techniques highlighted in this document contain the following information.

- Brief description of special features.
- When the technique is best used.
- Guidelines for implementation.
- Resources required.
- Pros and cons.

Research tells us that there is no single development or verification technique best suited to all instructional situations and all occupational areas. It also has been determined that a combination of techniques in the job analysis process is popular. For example, the Structured Group Interview technique can be followed by a survey, thus combining two techniques.

Criteria for Selecting a Task List Verification Technique

The task list verification technique you select should:

- Reflect business, industry and labor requirements.
- Build credibility in program graduates.
- Create goodwill in the community.
- Provide a method of staff development.
- Verify multiple aspects of tasks.
- Improve quality of the program.

This document is not intended to instruct in implementation, but to provide information on commonly used techniques so that vocational curriculum developers can choose the best technique for their situation. The chart below ranks each method according to the criteria listed above.

Factors	SGI	Survey	Interview	PAC
Reflects BIL* Requirements	1	2	3	4
Builds Credibility	1	4	3	2
Creates Goodwill	1	3	4	2
Provides Staff Development	1	3	2	4
Verifies Multiple Aspects of Task	1	3	2	4
Improves Quality of Program	1	2	3	4
Efficient	1	3	4	2

*Business, Industry, Labor

Curriculum development personnel should seek out colleagues who have conducted verifications. Training for implementation is available from a variety of sources including universities, consultants and state departments of education.

Contact the NNCCVTE State Liaison Representative (SLR) for your state to find resources and training available to you. SLRs and regional NNCCVTE Centers are listed beginning on page 33.

Definitions

Competency	Ability one must possess to perform a given occupational task efficiently and effectively.
Duty Area	An arbitrary grouping of related tasks, usually 8 - 12 per job.
Incumbent Worker	Person currently employed in the job being analyzed.
Job Analysis	Identification of job duties and tasks.
Observer	A teacher, counselor or administrator who observes a task list verification committee session to learn from the discussion of tasks. Parents, students and board members sometimes observe.
Steps	Specific elements or activities required to perform a task. At least two or more per task.
Task	Unit of work that is discreet, observable and performed within a limited period of time.
Task Analysis	Identification of the steps, knowledge required, tools, safety factors, and performance standards related to one or more tasks.
Task List	The foundation for development of competency based vocational education curriculum. A list of task statements grouped by larger duty areas which define the tasks performed by workers in a given occupation.
Validate	To give legal force to; to prove to be well grounded on principles or evidence.
Verification	A process that confirms what is needed locally.
Verify	To prove to be true by demonstration, evidence, or testimony; confirm or substantiate; to test or check the accuracy or correctness of.

Structured Group Interview (SGI)

Brief Description and Special Features

The Structured Group Interview (SGI) is a formal process used to interact with 6-10 business and industry workers employed in the job title being verified. In this process a trained facilitator leads the workers through a structured activity to identify and verify tasks from an existing task list. A complete sequenced list of tasks, rated as to importance to entry level employment is the result of this process.

Of the four verification methods, the SGI process is preferred because it provides the highest degree of interaction with business, industry and labor. This process requires a program coordinator and group facilitator who carry out specific functions.

Task lists are converted to cards -- large ones for duty areas and smaller ones for tasks. In this format each task is verified by a consensus of the committee and put on a wall in the order preferred by the committee, usually in a simple to complex sequencing. Committee members must work hard to verify, clarify, and add meaning to a task list.

Research indicates that use of a committee in task list verification produces a quality task list. Reasons for using a committee for verification include:

1. Incumbent workers are the best source of valid information.
2. A committee takes authority and responsibility for quality of the final task, lifting the burden to justify core content from the instructor.
3. Program staff have the opportunity to screen the people who will verify the task list assuring qualified committee members.
4. Program instructors benefit from observing the committee's discussion, especially on topics of dispute within an industry.

The success of the SGI process depends on a coordinated effort. Responsibilities of the coordinator may include the following:

1. Identify committee meeting location and make room arrangements.
2. Develop committee participant list with assistance of the program staff.
3. Confirm participation by phone and mail.
4. Prepare meeting packets and materials.
5. Convene meeting or arrange for "welcome" by school official.
6. Conduct evaluation of meeting.

7. Conduct participant follow-up to identify potential continuing program advisory members.

Group Facilitation

The SGI process of task list verification requires a well-qualified facilitator and committee of expert workers. The facilitator is responsible for obtaining a high-quality listing of the duties and tasks which define a given occupation. The facilitator must be highly skilled in curriculum development, group dynamics and the SGI technique of task list verification. The SGI process calls for more than a competent "discussion leader" or "curriculum developer."

The facilitator must establish and maintain the group's pace, balance the group's participation, clarify vague statements by probing for more details, and insist on selection of the most appropriate action verbs and task statement modifiers and nouns. The facilitator must motivate and lead the group and control the process, yet never impose content judgments or decisions on the participants.

SGI Committee Characteristics

After the coordinator and facilitator have been selected and the facilitator has received training, the next step in the task list verification procedure is to appoint a Task List Verification Committee. The local program staff are the most knowledgeable source for identifying committee members because of their associations with and knowledge of the community.

The Task List Verification Committee should have the following characteristics:

1. Mix of employees and supervisors. Committee members should be "expert workers" and immediate supervisors of such workers in a ratio of 4:1.
2. Geographic representation. Membership should be reflective of the geographics of the employing area whether statewide, regional or local.
3. Speciality representation. Major specialty representations within the occupation should be included on the committee.
4. Firm size representation. Members should be representative of the firms typically employing workers in the occupation under study.
5. State-of-the-art representation. Companies or businesses represented by the committee should have the most recent equipment.
6. Major employer representation. Experience will determine which major employers of graduates should be on the committee; however, inclusion of representatives which typically have not employed graduates is good for future placement possibilities.

7. Equity. Effort should be made to assure that committee members are not bias as to sex, race, religion, age or handicaps.
8. Committee size. Recommended committee size is 6-10 members. This size is small enough to be manageable by the facilitator, yet large enough to adequately represent the occupation.
9. Organized labor and professional organizations.

SGI Committee Qualifications

Committee member qualifications should include, but need not be limited to, the following:

1. Competence in the occupation. A minimum of two years of work experience in the occupation is recommended.
2. Full employment in the field. Supervisory personnel should direct persons performing the job and should have previously held the position being analyzed. Part-time employees may not be fully up to date.
3. Capability of verbalizing in a group setting. Even the most skilled person will not help the committee's work if he or she cannot verbally articulate needs and skills.
4. Open to innovations in the field. Committee members should be receptive to discuss new ideas applicable to the job area.
5. Freedom from bias. Members must be free of biases related to training time, training costs, qualifications, status of the occupation which may prevent them from functioning effectively as part of the team.
6. Confidence. Members must be able to speak with confidence about the nature of skills and relative rating to be assigned.
7. Freedom to devote time. Members must work uninterrupted during the committee meeting. Because of the intense nature of the work and team spirit generated by the activity, members may resent someone who comes late or leaves early.
8. Desire to participate. Someone assigned to help may not want to participate. If real interest in improving instruction for the occupation exists, the member will be more productive.

When To Use SGI

Use the SGI when:

- A new occupational area is established.
- New staff are involved.
- Existing staff inservice is needed.
- Program needs a public relations boost.
- Occupational area is changing rapidly.

- Great occupational diversity exists in the community.

Guidelines/Steps

1. Obtain task lists.
2. Convene a committee of secondary and postsecondary instructors to assist in the identification of potential business and industry committee members.
3. Add any tasks program instructors believe appropriate.
4. Select and train facilitators.
5. Make arrangements for appropriate meeting facilities.
6. Develop a schedule of major events and activities.
7. Contact companies and committee nominees by telephone or mail to explain the verification process and to confirm willingness to participate.
8. Invite observers. (School program representatives observe instead of participating as a committee member).

Resources Required

- "Hold It" putty. This plastic adhesive, which fastens lightweight items to a clean surface, does not mark the surface when removed.
- Cards (5" x 8" and 4" x 6") on which task lists have been written. Extras will be needed for new tasks.
- Agendas.
- Red, blue, and black felt tipped pens.

Facilities for SGI

1. Quiet room, away from phones and distractions.
2. One long smooth blank wall.
3. Well lighted room.
4. Soft chairs behind narrow tables for panel members. Tables and chairs must face wall.
5. Water, refreshments, snacks.
6. Seating for observers behind panel members.

Pros and Cons

The following list of pros and cons of the SGI will help you determine if this technique is the one best suited to your local situation.

Pros

- Low cost to conduct a one day meeting.
- Time efficient. Business and industry representatives donate time for the 6 - 8 hour meeting. Approximately two-day staff preparation time is required.
- Ability to screen committee of members.
- Immediate feedback and clarifications on tasks in dispute.
- Consensus of business, industry, and labor.
- Multiple ratings may be applied.
- Committee takes responsibility for content.
- Provides staff development for observers.

Cons

- Trained facilitator required.
- Quality of membership critical.
- Special room accommodations required.
- Special supplies required.
- Program coordination required.

Program Advisory Council (PAC)

Brief Description of Special Features

Vocational education has used advisory councils for generations to improve vocational programs at the local and state level. The experience and expertise of members make their advice and assistance valuable in such areas as equipment purchases, job exploration and opportunities and locations for hands-on experience.

The Program Advisory Council (PAC) consists of people willing to donate time for the purpose of reviewing and discussing task lists. This is a different type of meeting than most advisory council members are used to.

The PAC technique assumes that a continuing advisory council is already in place to serve vocational education. A special ad hoc committee may need to be established for the purpose of task list verification. Members decide which tasks should be added or deleted. This is accomplished at formal meetings, designed specifically for task list verification.

When To Use PAC

The PAC can be used for verification when it is impossible to convene an SGI committee. It should be noted that a general PAC may contain few incumbent workers in the occupation to be verified. The PAC is most used when verifying an occupation that is very stable and needs little change.

Guidelines/Steps

A PAC meeting for task verification will be more productive if conducted in accordance with the following guidelines:

1. Review the council membership. Do members represent the job area? If there is not a craft advisory committee for this occupation, it will be necessary to form an ad hoc committee. The ad hoc committee should include eight to ten experts from the occupation. Some may be supervisers of workers in the occupation.
2. Review purpose of existing council. Intact procedures may not allow task verification to occur.

3. Modify guidelines and policy for task list verification purposes. Revise the guidelines and policy to encourage/accommodate task list verification.
4. Estimate meeting agenda. Time should allow committee members to review the complete list of competencies.
5. Schedule meeting facility.
6. Confirm participation.
7. Conduct meeting.

The principle guidelines for conducting the meeting are:

- School program representative does not participate but keeps group moving.
- Group consensus determines if each task is kept, deleted or changed.
- Committee members recognize that their decision on tasks will determine the program content base.

Resources Required

The PAC technique requires minimum resources. It needs personnel to arrange details of the meeting and contact prospective committee members. Other requirements are supplies such as pencils and paper pads, a chalk board or a flip chart with newsprint and felt tip markers.

Pros and Cons

The following list of pros and cons will help in determining if this technique is the one best suited to the local situation.

Pros

Quick. Within a short period of time, the council can verify a task list.

Low cost. The council members are donating their time. Minimal expenses include providing multiple copies of task lists, paper and pencils.

Efficient. The members are from the local area which reduces travel and meal expenses. It is easy to contact members. Minimum time is needed for organizing the meeting. Few restrictions exist.

Minimal staff time. Staff time is desirable for assistance with committee member selection.

No staff training. The staff does not require special training.

Cons

Unorganized. If guidelines are not utilized and purpose is not defined, a PAC has a tendency to waste members' time.

Personalities dominate. The more outspoken, aggressive, and assertive members control the meeting and limit interaction with members.

Bias. Factors which influence selection of PAC members may result in a group not representative of the skills and abilities needed to perform the job.

Little staff development. Unless special efforts are made, staff development is limited.

Worker Survey

Brief Description and Special Features

The survey is a popular technique used to obtain a representative opinion of a targeted population. Either the telephone or mail survey may be used, though the latter is more common and is addressed in this booklet.

The survey is used to obtain opinions as to importance of each task of a specific job. The validated instrument (questionnaire) is mailed to each person in the sample of the targeted population. The person is asked to respond to the items and return the completed questionnaire.

Workers who are most familiar with a particular job complete the questionnaire. The success of this method depends on the workers' ability to (1) interpret correctly the questionnaire items (typically a series of short-answer questions) and (2) provide accurate and easy-to-classify answers. In comparison to other methods of collecting job information, a large amount of information can be obtained by a questionnaire.

When To Use Worker Survey

The questionnaire method is appropriate for the following situations:

1. The job to be analyzed is not especially difficult to describe.
2. The job is comprised of physical activities instead of human relations or personality factors. Generally, workers find it difficult to assess the importance of human relations or personality factors used in their jobs.
3. There are a large number of employees whose jobs are to be analyzed.
4. Large amounts of job information has to be obtained.
5. The questionnaire can be precisely and clearly worded.

The design of the questionnaire is determined to a great extent by the number of employees expected to complete it. For a small number of employees, a questionnaire may be sufficient if it includes: title of the job; description of the duties and tasks performed daily, weekly, monthly, quarterly, and annually; special requirements (skills, knowledges, attitudes); and special work performed on the job. The questionnaire can allow for more descriptive responses from individuals. When a greater number of employees is expected to complete the questionnaire, more detail may be

required. Every effort is made to keep questionnaire items close-ended to restrict the descriptive responses.

Guidelines/Steps

A higher return rate and valid data are easier to obtain by using these guidelines:

1. Identify sample size and respondents. The target population (total number of workers employed at the specific job) is known and from that the size of sample (percentage of target population) is determined. Establishments employing the workers must be identified.

2. Identify or develop questionnaire. If a questionnaire that will meet the specific needs cannot be identified, one must be designed or an existing one modified.

3. Decide on ratings to use. Ratings include frequency of task performance, importance of task, complexity and criticality.

4. Prepare a cover letter. A letter explaining the purpose of the questionnaire and requesting the individual's assistance accompanies the questionnaire.

5. Establish a realistic time frame. Allow time to 1) develop, modify and validate the questionnaire; 2) print the needed number of questionnaires; 3) prepare the cover letter; 4) mail the questionnaire; 5) implement follow-up procedures; and 6) analyze, compile, and interpret data.

6. Decide protocol for sending questionnaire. Make preliminary arrangements with the establishment employing the workers. The supervisor of the worker should be informed about the questionnaire and should approve the worker's participation.

7. Aim for 70% response. Methods for obtaining at least a 70% response should be identified and resources should be available for follow-up.

8. Design and implement follow-up activities. Follow-up activities assure a higher return rate. Rewards such as a stick of gum or packet of coffee accompanying the follow-up helps generate responses.

Data

The survey will generate an abundance of data. Every effort is made to request data needed only to accomplish the purpose of the survey, i.e., task

lists. If additional data is requested make sure the data will be utilized. Analysis of the data yields a task list based on frequency of response and ratings.

Resources Required

To conduct a worker survey, resources required include a survey instrument, an identified sampling of workers, and personnel to administer the instrument and complete the data interpretation.

Success factors for a survey are:

- Good organization
- Quality service questionnaire
- Representative sampling
- High return rate
- Resources for mailing survey
- Ability to tally and intrepret data

Procedures Checklist

The procedures checklist, which follows, will help individuals responsible for the survey attain a high return of complete, valid data from respondents.

1. Identify the sample to be surveyed.
2. Outline the objectives of the survey and the tasks to be accomplished.
3. Develop a timetable for completing the survey.
4. Appoint a committee to assist with the survey.
5. Select the sample to be surveyed.
6. Develop the questionnaire.
7. Develop the cover letter or covering directions.
8. Meet with data processing people to discuss coding the questionnaire.
9. Try out (pretest) the questionnaire.
10. Revise the questionnaire, if needed.
11. Meet with data processing people to code the questionnaire.
12. Conduct the survey.
    (a) Develop a schedule for sending surveys and reminder cards.
    (b) Mail first cover letter and questionnaire.
    (c) Send thank you/reminder cards after one week.
    (d) Send second cover letter with questionnaire (after second week).
    (e) Place telephone calls to non-respondents, optional.
13. Tabulate the data.
14. Analyze the data.
15. Interpret the data.
16. Prepare a report of the findings.

17. Disseminate findings.

Pros and Cons

The pros and cons of conducting a mail survey will help determine if this technique is the technique best suited for the situation.

Pros

Low cost. The basic cost for conducting a worker survey includes copies of the cover letter and questionnaire, envelopes and postage.

Promotes public relations. A brief explanation of the purpose of the questionnaire is a way of bringing attention to program offerings.

Involves staff. The data obtained from the survey can be analyzed by the staff involved with the specific program. Such involvement usually stimulates interest and creates a feeling of ownership.

Allows multiple areas of ratings. More than one area of rating can be obtained from the questionnaire. Areas to be rated may include importance of task, frequency of performance, complexity of task, and criticality.

Cons

Time consuming. Using a pre-designed questionnaire, providing necessary copies, and doing a one-time mailing requires a minimum of two to three weeks. Additional time is needed if the questionnaire must be developed or modified and validated, if a follow-up is conducted and if the sample size is large. The length and complexity of the questionnaire affects time needed for analysis and compilation of data.

Requires follow-up. Though a deadline for return of questionnaires is identified, a reminder is used to obtain a higher return rate. Depending on the return rate, two follow-ups may be necessary. Resources must be available for the follow-up.

Requires survey research skills and data analysis. Special skills are needed for identification or development of the questionnaire and for analyzing, compiling and reporting the data. Because of conflicting data, a researcher is needed to interpret results accurately.

Subject to sampling bias. Guidelines exist and should be adhered to when selecting the sample. Otherwise data obtained will not represent the targeted population.

Subject to demand characteristics. The design of the questionnaire may reflect what is "popular" at that particular time. Thus, the questionnaire and response will have characteristics related to the demands associated with the job. Validation of the questionnaire minimizes this factor.

Subject to questionnaire bias. The structure of the questionnaire may reflect the "designer's" view which fosters an inaccurate reflection of job duties and tasks from the respondents.

Generates little commitment. Personal interaction between people (staff) involved with the program and survey and individuals responding to the questionnaire is minimal. It is difficult for respondents to realize the value their contributions will make to the program.

Worker Interview

Brief Description of Special Features

The worker interview technique is a good method for obtaining primary data on a one-to-one basis.

This method involves interviewing and observing the worker. It is a combination of following, observing, and talking to workers to determine tasks performed in a specific job.

The interview aspect involves questioning employees about duties and tasks. A job information worksheet facilitates the interviewing. The items included on the worksheet are similar to the items included on a questionnaire, and are written and arranged in such a way that the interviewer can check responses given during the interview. Accuracy and completeness of information can be increased by reading the employees responses back to them for confirmation.

The shadowing aspect of this method involves observing employees performing their jobs at work stations. The job analyst records observations on a job observation sheet, which includes many of the same items found on the questionnaire or on-the-job information worksheet.

Permission to conduct the interview and shadowing should be obtained from the workers' supervisors before details of the interview (time, date and place) are arranged.

When To Use Worker Interview

The Worker Interview is best suited for those job areas that are new and/or require few workers. Another factor to consider is working conditions such as special clothing, clearance of personnel (security) and physical danger.

Guidelines/Steps

The following guidelines are helpful in implementing the worker interview technique.

1. Design questions. Use unstructured or semi-structured questions that require a response or answer. Structured questions require the person to select from given alternatives.

2. Word questions clearly. Check the wording of each question to make sure different interpretations cannot be made. "Trying out" the questions on other people prior to use is helpful and assures clarity.

3. Sequence questions. Think through the order of asking questions. Questions may range from easy to difficult, impersonal to personal, simple to complex.

4. Avoid questions based on assumptions. Questions such as "How have you done task verification in the past?" is based on the assumption the worker has been involved in the activity.

5. Define terms, when necessary. It is helpful to have an understanding of key terms at the beginning. Throughout the interview it may be necessary to define specific terminology. This is true for both parties.

6. Prompt/probe for clarification. If a question or answer is not understood, prompt or probe the individual until both parties understand. This is an outstanding feature of the interview technique.

7. Keep interview/shadow sessions brief. A timeline should be identified and adhered to. The use of predetermined questions helps.

8. Decide on most appropriate job. This is critical because the technique is very time consuming and expensive.

9. Determine which person(s) to interview/shadow. Time, money, and energy should not be wasted by involving people not representative of the job.

10. Determine standards for interviewing/shadowing. No worker works alone or uninterrupted. Before beginning, decide how interruptions and interactions with other people will be handled and recorded.

11. Decide on the length of time. The important point to remember is that job interviewing/shadowing should be as long as necessary to collect information. The length of time may vary from a few hours to a few weeks or may require several sessions over a longer period of time. Data collected must represent the skills necessary for job performance.

12. Determine standard time to interview/shadow. The workload varies during the work period and week. Shadowing should reflect the essential tasks necessary to perform duties of the specific job.

13. Method for recording information. Decide how the information will be recorded. Checklists or rating scales are helpful. However, they must be identified or developed prior to shadowing.

Sample Questions

-- What tasks are performed by you?
-- How important is each task?
-- How often do you perform the tasks?
-- If you were to train a worker for the job, which tasks would you consider basic to the job performance?
-- Do other workers doing the same job perform the same tasks as you do?
-- Is the equipment/tools used considered the best?

Resources Required

In order to use the Worker Interview Technique criteria must be developed or availalbe that will assure standard procedures for talking with the worker and recording observed performance. The personnel conducting the interview and observation need to have the skill for probing for responses and recording data accurately. Additional skills are needed for interpreting and reporting the data.

Pros and Cons

Familiarity with advantages and disadvantages will help you decide whether worker interview/shadowing is useful for task verification.

Pros

First-hand information. The face-to-face situation provides opportunity for exchange of thoughts and observation of facial, physical, and vocal reactions.

Staff development. The staff becomes involved in the process by developing interview questions, identifying participants and participating in a session that emphasizes the importance of and ways to establish interviewer/employee rapport.

New occupations with few workers. The in-depth approach of the technique allows abundant data to be collected from a few employees.

Multiple ratings. In addition to information relating to performance frequency, importance of task, and criticality, the method is good for collecting judgments and attitudes.

In-depth information. The method generates detailed information. Any misunderstandings can be quickly clarified.

Flexible/adaptable to the individual. The one-to-one situation allows adjustments in schedules, questioning, and observation. This is important because some questions may be interpreted as threatening and observation can cause the employee to feel uncomfortable. When either situation develops, the interviewer can initiate ways of minimizing the adverse conditions.

Clarity of response. Any ambiguities, misunderstandings and misinterpretations can be corrected quickly with additional prompting and probing. Questions are asked until both parties reach an understanding.

Abundance of information. The technique generates a lot of data. A qualified analyst is needed to synthesize and interpret the data.

Cons

Expensive. The method involves a lot of staff time. The one-to-one situation for interviewing and observing requires large segments of time of both parties. Synthesizing and analyzing data are also time consuming.

Requires research and questioning skills. The success of the method depends on the ability to establish rapport, make use of conversation, analyze essential points of the interview, record data accurately, and interpret and report data.

Small sample. It is critical to select the most appropriate people if an accurate verification of tasks is to be accomplished. Scarcity of employees in the specific job area limits choices.

Requires cross-validation. The small number of workers interviewed and shadowed makes the data vulnerable. Therefore the data should be validated with other sources of information.

Bias/affected by interviewer. The interviewer's manner of questioning and observing including the presence/absence of non-verbal behavior can influence the responses of the worker.

Subject to Hawthorne Effect - response and performance. When workers are interviewed, they tend to respond the way they think the interviewer desires, or the way they should. When workers are observed, they may perform tasks differently, i.e. more quickly, safer, accurately, than normally.

Limited public relations value. The public relations impact is not as great because the number of workers involved is very small. However, the personal involvement with the worker is some compensation.

Data difficult to tabulate. Difficulties occur in separating data, standardizing responses, and interpreting data.

Working conditions. The work area and/or job may be dangerous. Special permission, clothing, etc. may be required to conduct the interview.

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